What Is Claimed Is:

1. A monkey monoclonal antibody or a primatized form thereof which specifically binds human B7.1 antigen and/or human B7.2 antigen.

2. The antibody of claim 1 which is selected from the group consisting of 16C10, 7C10, 20C9 and 7B6.

3. The antibody of claim 1 which is a depleting antibody.

4. The antibody of claim 1 which is a non-depleting antibody.

5. A primatized antibody which specifically binds to human B7.1 antigen which contains the variable heavy and light domains of an antibody selected from the group consisting of 16C10, 7C10, 20C9 and 7B6.

6. The primatized antibody of claim 5 wherein said antibody is derived from 7C10 and has the amino acid sequence set forth in Figures 8a and 8b. (SEQ. ID NOS. 1-4)

7. The primatized antibody of claim 6 which is encoded by the nucleic acid sequence set forth in Figures 8a and 8b. (SEQ. ID. NOS. 1-4)

8. The primatized antibody of claim 5 wherein said antibody is derived from 7B6 and has the amino acid sequence set forth in Figures 9a and 9b. (SEQ. ID NOS. 5-8)

9. The primatized antibody of claim 8 wherein said antibody is encoded by the nucleic acid sequence set forth in Figures 9a and 9b. (SEQ. ID NOS. 5-8)

10. The primatized antibody of claim 5 wherein said antibody is derived from 16C10 and has the amino acid sequence set forth in Figures ~~4a and 4b~~ 9a and 9b (SEQ. ID NOS. 5-8).

11. The primatized antibody of claim 5 wherein said antibody is encoded by the nucleic acid sequence set forth in Figures 10a and 10b. (SEQ. ID NOS. 9-12)

12. A transfectoma which expresses a primatized antibody which specifically binds to human B7.1 and/or human B7.2 antigen.

13. The transfectoma of claim 12 which is a CHO cell.

14. The transfectoma of claim 13 wherein said cell expresses a primatized antibody having the amino acid sequence set forth in any one of Figures 8a, 8b, 9a, 9b, 10a and 10b.

15. A pharmaceutical composition suitable for treatment of a disease treatable by inhibition of B7-CD28 binding which comprises an antibody according to any one of claims 1 to 11.

16. A method of treating a disease by inhibition of the B7:CD28 pathway which comprises administering a therapeutically effective amount of at least one antibody according to any one of claims 1 to 11.

17. The method of claim 16 wherein said antibody is 16C10, 7C10, 20C9, 7B6 or a primatized form thereof.

18. The method of claim 16 wherein said disease is an autoimmune disorder.

19. The method of claim 16 wherein said disease is selected from idiopathic thrombocytopenia purpura, systemic lupus erythematosus, type 1 diabetes mellitus, rheumatoid arthritis, psoriasis and multiple sclerosis.

20. The method of claim 16 wherein said disease is graft-versus-host disease.